

NEW HAMPSHIRE WATER SUPPLY AND POLLUTION CONTROL COMMISSION

LAKE TROPHIC DATA

MORPHOMETRIC:

LAKE <u>Moore's Pond</u>	LAKE AREA (HA) <u>20.23</u>
TOWN <u>Tamworth</u>	MAXIMUM DEPTH (M) <u>11.3</u>
COUNTY <u>Carroll</u>	MEAN DEPTH (M) <u>4.4</u>
RIVER BASIN <u>Saco</u>	VOLUME (M ³) <u>8,858,500</u>
LATITUDE <u>43° 51' N</u>	MUD SURFACE AREA (HA) <u>20.26</u>
LONGITUDE <u>71° 11' W</u>	RELATIVE DEPTH <u>2.2</u>
ELEVATION (FT) <u>440</u>	SHORE CONFIGURATION <u>1.63</u>
SHORE LENGTH (M) <u>2600</u>	AREAL WATER LOAD (M/YR) <u>148.99</u>
WATERSHED AREA (HA) <u>4946.9</u>	FLUSHING RATE (YR ⁻¹) <u>34.0</u>
% WATERSHED PONDED <u>0.1</u>	PHOSPHORUS RETENTION COEFF. <u>0.14</u>

BIOLOGICAL:

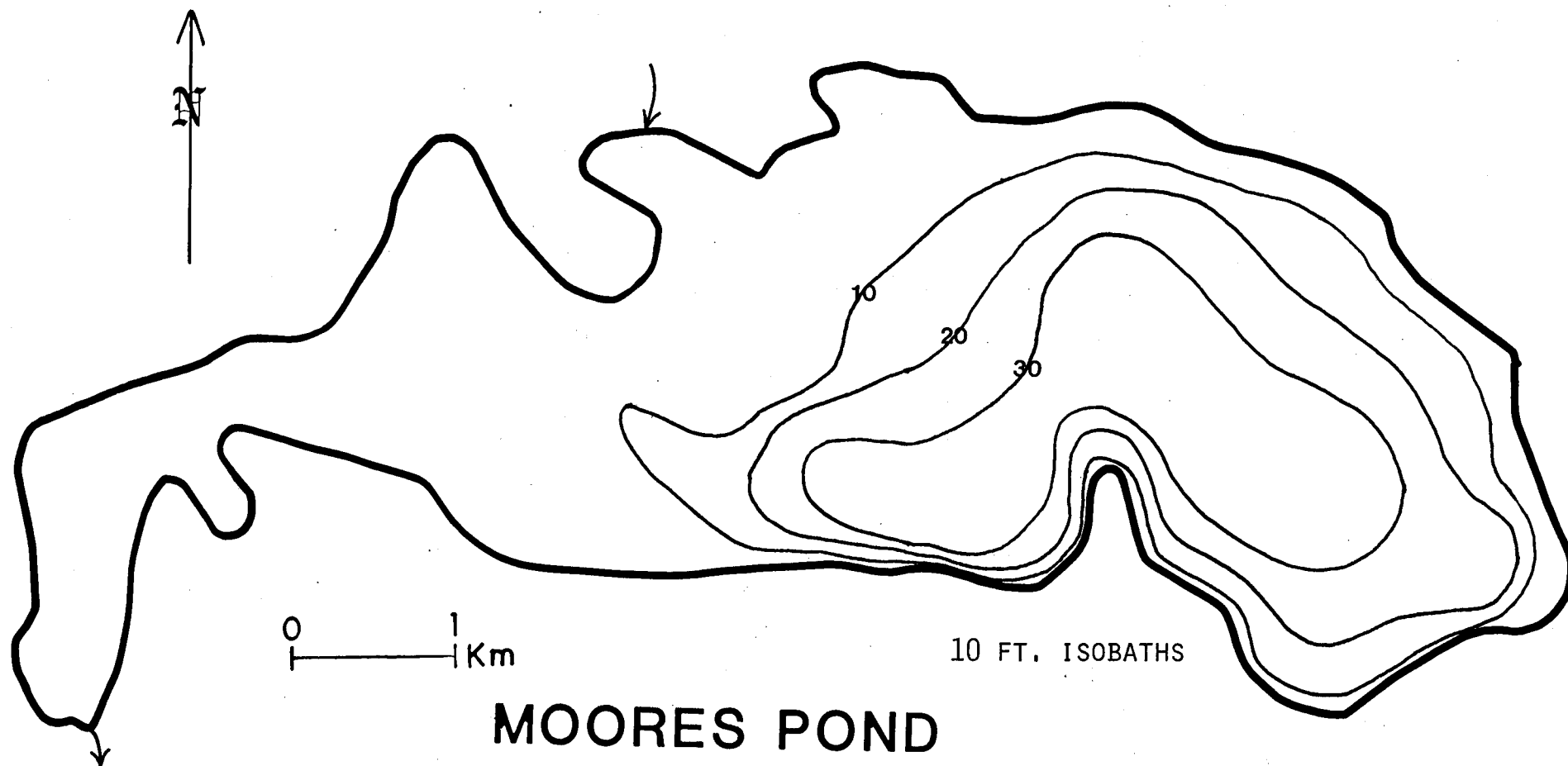
DATE	11 MAR 1985	16 JUL 1984
DOM. PHYTOPLANKTON (% total) ¹	Asterionella (70%)	Dinobryon (65%)
²	Dinobryon (15%)	Chrysosphaerella (10%)
NUMBER OF ALGAL GENERA	7	16
SPECIES DIVERSITY	1.48	1.88
CHLOROPHYLL <u>a</u> (µg/L)		2.12
DOM. ZOOPLANKTON (% total) ¹	no dominant	Keratella (45%)
²		Polyarthra (20%)
ROTIFERS/LITER	6	132
MICROCRUSTACEA/LITER	<1	18
TOTAL ZOOPLANK. CNTS (cells/L)	11	154
VASCULAR PLANT ABUNDANCE		Common
DOMINANT VASCULAR PLANTS ¹		Pontederia cordata
²		Nymphaea
³		Nymphoides
SECCHI DISK TRANSPARENCY (M)		7.1
BOTTOM DISS. OXYGEN (mg/L)	4.7	1.3
SEDIMENT: % ORGANIC MATTER		

LAKE TYPE: A natural pond.

SUMMER THERMAL STRATIFICATION: YES ☒ NO ☐ WEAK ☐

IF YES, VOLUME OF HYPOLIMNION 167,500 (m³) THERMOCLINE DEPTH 2.1 (m)

CHEMICAL: (mg/L unless indicated otherwise) LAKE: Moores Pond						
	WINTER		SUMMER			
DATE	11 MAR 1985		16 JUL 1984			
DEPTH (M)	3.5	6.5	1.0	4.0	8.0	
pH (UNITS)	6.3	6.3	6.5	6.3	6.3	
ALKALINITY (I. P.)	3.5	4.6	3.4	4.3	7.0	
ALKALINITY (F.E.P.)	5.0	6.0	4.9	5.9	8.6	
NITRITE+NITRATE NITROGEN						
TOTAL KJELDAHL NITROGEN						
TOTAL PHOSPHORUS	0.005	0.009	.005	.020	.008	
SPEC. CONDUCT. (μ Mhos/cm)	34.6	39.4	33.2	33.9	50.1	
APPARENT COLOR (UNITS)	15	15	25	15	15	
TRUE COLOR (440 nm)(UNITS)	24	13	21	10	6	
MAGNESIUM			.20			
CALCIUM			1.8			
SODIUM			4			
POTASSIUM			.43			
CHLORIDE			3		5	
TN : TP						
INORG-N : INORG-P						
[Mg+Ca] : [Na+K]			.45			
CALCITE SATURATION INDEX			4.0			
* = NOT DEFENSIBLE NR = NO RESULT						
TROPIC CLASSIFICATION: 1984						
		D.O.	S.D.	PLANT ABUND.	TOTAL CHL a PTS.	TROPIC CLASS.
CLASSIFICATION POINTS:		4	1	2	0	7 MESO.
COMMENTS:						
1. No public access; launch site is located on the outlet stream, but belongs to the Choctorua Ski and Beach Association; launch had a gentle slope, but was into a shallow, rocky area; limited parking was available. 2. Nice looking pond; only about 35% of the shoreline was developed. 3. Outboard motors are not allowed; many canoes and rowboats were present.						



MOORES POND

TAMWORTH

ROUGH BATHYMETRIC CHART

WSPCC -- 1984

SOUNDED BY FATHOMETER

FIELD DATA SHEET

WATER BODY Moore's PondTOWN TamworthBY WSPCCDATE COLLECTED 16 July 1984WEATHER Thunder showers

STATION	DEPTH (M)	TEMP. (°C)	*DISSOLVED OXYGEN	OXYGEN: % SATURATION			
Deep Spot	0.0	24.9	9.2	110%			
	1.0	23.0	9.2				
	2.0	20.1	10.6				
	3.0	14.1	12.6	121%			
	4.0	11.8	12.2				
	5.0	10.0	11.9				
	6.0	9.2	9.4				
	7.0	8.7	7.4				
	8.0	8.0	5.5				
	9.0	7.9	3.0				
	10.0	7.9	1.3	11%			

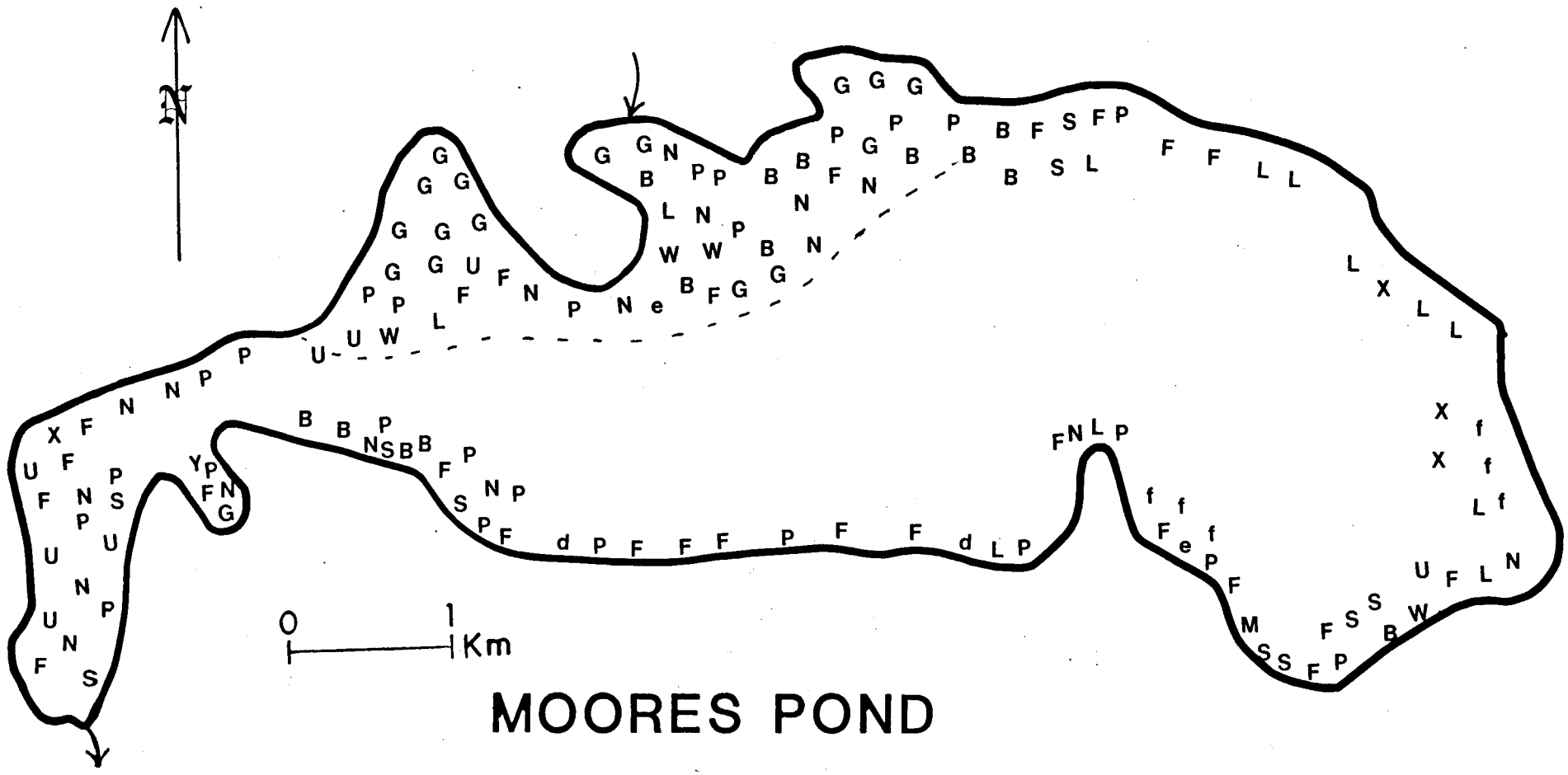
SECCHI DISK (M) 7.1

COMMENTS:

BOTTOM DEPTH (M) 10.6TIME 1300

* Dissolved oxygen values in mg/L

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MOORES POND

TAMWORTH

AQUATIC PLANTS

16 JUL 1984

AQUATIC PLANT SURVEY

LAKE Moores Pond TOWN Tamworth DATE 7/16/84 BY WSPCC

[illegible]

OVERALL ABUNDANCE Common

GENERAL OBSERVATIONS:

1. Plants were abundant in the northern coves and along the outlet area; they were sparse to scattered along the rest of the shoreline, for an overall rating of 'common'.
2. Freshwater sponges and mussels were observed; also several turtles.
3. Filamentous algae were common in some areas.